

1 15A NCAC 02L .0106 is proposed for amendment as follows:

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3 **15A NCAC 02L .0106 CORRECTIVE ACTION**

4 (a) Where groundwater quality has been degraded, the goal of any required corrective action shall  
5 be restoration to the level of the standards, or as closely thereto as is economically and  
6 technologically feasible. In all cases involving requests to the ~~Director~~ Secretary, as defined in 15A  
7 NCAC 2C .0102, for approval of corrective action plans, or termination of corrective action, the  
8 responsibility for providing all information required by this Rule lies with the person(s) making the  
9 request.

10 (b) Any person conducting or controlling an activity which results in the discharge of a waste or  
11 hazardous substance or oil to the groundwaters of the State, or in proximity thereto, shall take  
12 immediate action to terminate and control the discharge, mitigate any hazards resulting from  
13 exposure to the pollutants and notify the ~~Division~~ Department, as defined in 15A NCAC 2C .0102,  
14 of the discharge.

15 (c) Any person conducting or controlling an activity which has not been permitted by the ~~Division~~  
16 Department and which results in an increase in the concentration of a substance in excess of the  
17 standard, other than agricultural operations, shall:

- 18 (1) immediately within 24 hours of discovery of the violation, notify the ~~Division~~  
19 Department of the activity that has resulted in the increase and the contaminant  
20 concentration levels;
- 21 ~~(2) take immediate action to eliminate the source or sources of contamination;~~
- 22 (2) respond in accordance with Paragraph (f) of this Rule;
- 23 (3) submit a report to the ~~Director~~ Secretary assessing the cause, significance and extent  
24 of the violation; and
- 25 (4) implement an approved corrective action plan for restoration of groundwater quality  
26 in accordance with a schedule established by the ~~Director, or his designee~~ Secretary.  
27 In establishing a schedule the ~~Director, or his designee~~ Secretary shall consider any  
28 reasonable schedule proposed by the person submitting the plan. A report shall be  
29 made to the Health Director of the county or counties in which the contamination  
30 occurs in accordance with the requirements of Rule .0114(a) in this Section.

31 Any activity not permitted pursuant to G.S. 143-215.1 or G.S. 130A-294 shall for the purpose of this  
32 Rule be deemed not permitted by the Department and subject to the provisions of this Paragraph of  
33 this Rule.

34 (d) Any person conducting or controlling an activity which is conducted under the authority of a  
35 permit initially issued by the ~~Division~~ Department on or after December 30, 1983 pursuant to G.S.  
36 143-215.1 or G.S. 130A-294 and which results in an increase in concentration of a substance in  
37 excess of the standards:

- 38 (1) at or beyond a review boundary, shall demonstrate, through predictive calculations or  
39 modeling, that natural site conditions, facility design and operational controls will  
40 prevent a violation of standards at the compliance boundary; or submit a plan for  
41 alteration of existing site conditions, facility design or operational controls that will  
42 prevent a violation at the compliance boundary, and implement that plan upon its  
43 approval by the ~~Director, or his designee~~ Secretary.
- 44 (2) at or beyond a compliance boundary, shall assess the cause, significance and extent of  
45 the violation of standards and submit the results of the investigation, and a plan and  
46 proposed schedule for corrective action to the ~~Director, or his designee~~ Secretary.

The permittee shall implement the plan as approved by and in accordance with a schedule established by the ~~Director, or his designee~~ Secretary. In establishing a schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable schedule proposed by the permittee.

~~(e) For the purposes of Paragraphs (c) and (d) of this Rule, an activity conducted under the authority of a permit issued by the Division, and subject to Paragraph (d) of this Rule, is one for which:~~

- ~~(1) a permit has been issued pursuant to G.S. 143-215.1;~~
- ~~(2) the permit was originally issued after December 30, 1983;~~
- ~~(3) the substance for which a standard has been exceeded outside the compliance boundary has been released to groundwater as a result of the permitted activity;~~
- ~~(4) all other activities shall for the purpose of this Rule be deemed not permitted by the Division and subject to the provisions of Paragraph (c) of this Rule.~~

(e) Any person conducting or controlling an activity which is conducted under the authority of a permit initially issued by the Department prior to December 30, 1983 pursuant to G.S. 143-215.1 or G.S. 130A-294, and which results in an increase in concentration of a substance in excess of the standards at or beyond the compliance boundary specified in the permit, shall:

- (1) within 24 hours of discovery of the violation, notify the Department of the activity that has resulted in the increase and the contaminant concentration levels;
- (2) respond in accordance with Paragraph (f) of this Rule;
- (3) submit a report to the Secretary assessing the cause, significance and extent of the violation; and
- (4) implement an approved corrective action plan for restoration of groundwater quality at or beyond the compliance boundary, in accordance with a schedule established by the Secretary. In establishing a schedule the Secretary shall consider any reasonable schedule proposed by the person submitting the plan. A report shall be made to the Health Director of the county or counties in which the contamination occurs in accordance with the requirements of Rule .0114(a) in this Section.

~~(f) Corrective action~~ Initial response required following discovery of the unauthorized release of a contaminant to the surface or subsurface of the land, and prior to or concurrent with the assessment required in Paragraphs ~~(c) and (d)~~ (c), (d), or (e) of this Rule, shall include, but is not limited to:

- (1) Prevention of fire, explosion or the spread of noxious fumes;
- (2) Abatement, containment or control of the migration of contaminants;
- (3) Removal, ~~or treatment~~ treatment, or ~~and~~ control of any primary pollution source such as buried waste, waste stockpiles or surficial accumulations of free products;
- (4) Removal, ~~treatment~~ or treatment, or control of secondary pollution sources which would be potential continuing sources of pollutants to the groundwaters such as contaminated soils and non-aqueous phase liquids. Contaminated soils which threaten the quality of groundwaters must be treated, contained or disposed of in accordance with applicable rules. The treatment or disposal of contaminated soils shall be conducted in a manner that will not result in a violation of standards or North Carolina Hazardous Waste Management rules.

(g) The site assessment conducted pursuant to the requirements of Paragraph (c) or (e) of this Rule, shall include:

- (1) The source and cause of contamination;
- (2) Any imminent hazards to public health and safety and actions taken to mitigate them in accordance with Paragraph (f) of this Rule;

- 1 (3) All receptors and significant exposure pathways;
- 2 (4) The horizontal and vertical extent of soil and groundwater contamination and all
- 3 significant factors affecting contaminant transport; and
- 4 (5) Geological and hydrogeological features influencing the movement, chemical, and
- 5 physical character of the contaminants.

6 Reports of site assessments shall be submitted to the ~~Division~~ Department as soon as practicable or  
 7 in accordance with a schedule established by the ~~Director, or his designee.~~ Secretary. In establishing  
 8 a schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable proposal by the  
 9 person submitting the report.

10 (h) Corrective action plans for restoration of groundwater quality, submitted pursuant to Paragraphs  
 11 ~~(e) and (d)~~ (c), (d), and (e) of this Rule shall include:

- 12 (1) A description of the proposed corrective action and reasons for its selection.
- 13 (2) Specific plans, including engineering details where applicable, for restoring
- 14 groundwater quality.
- 15 (3) A schedule for the implementation and operation of the proposed plan.
- 16 (4) A monitoring plan for evaluating the effectiveness of the proposed corrective action
- 17 and the movement of the contaminant plume.

18 (i) In the evaluation of corrective action plans, the ~~Director, or his designee~~ Secretary shall consider  
 19 the extent of any violations, the extent of any threat to human health or safety, the extent of damage  
 20 or potential adverse impact to the environment, technology available to accomplish restoration, the  
 21 potential for degradation of the contaminants in the environment, the time and costs estimated to  
 22 achieve groundwater quality restoration, and the public and economic benefits to be derived from  
 23 groundwater quality restoration.

24 (j) A corrective action plan prepared pursuant to Paragraph ~~(e) or (d)~~ (c), (d), or (e) of this Rule  
 25 must be implemented using the best available technology for restoration of groundwater quality to  
 26 the level of the standards, except as provided in Paragraphs (k), (l), (m), (r) and (s) of this Rule.

27 (k) Any person required to implement an approved corrective action plan for a ~~non-permitted site~~  
 28 ~~pursuant to site subject to Paragraph (c) or (e) of this Rule~~ may request that the ~~Director~~ Secretary  
 29 approve such a plan without requiring groundwater remediation to the standards. A request  
 30 submitted to the ~~Director~~ Secretary under this Paragraph shall include a description of site specific  
 31 conditions, including information on the availability of public water supplies for the affected area;  
 32 the technical basis for the request; and any other information requested by the ~~Director~~ Secretary to  
 33 thoroughly evaluate the request. In addition, the person making the request must demonstrate to the  
 34 satisfaction of the ~~Director~~ Secretary:

- 35 (1) that all sources of contamination and free product have been removed or controlled
- 36 pursuant to Paragraph (f) of this Rule;
- 37 (2) that the time and direction of contaminant travel can be predicted with reasonable
- 38 certainty;
- 39 (3) that contaminants have not and will not migrate onto adjacent properties, or that:
- 40 (A) such properties are served by an existing public water supply system
- 41 dependent on surface waters or hydraulically isolated groundwater, or
- 42 (B) the owners of such properties have consented in writing to the request;
- 43 (4) that the standards specified in Rule .0202 of this Subchapter will be met at a location
- 44 no closer than one year time of travel upgradient of an existing or foreseeable
- 45 receptor, based on travel time and the natural attenuation capacity of subsurface

- materials or on a physical barrier to groundwater migration that exists or will be installed by the person making the request;
- (5) that, if the contaminant plume is expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
  - (6) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section;
  - (7) that the proposed corrective action plan would be consistent with all other environmental laws.
- (l) Any person required to implement an approved corrective action plan for a ~~non-permitted site pursuant to site subject to Paragraph (c) or (e) of this Rule~~ may request that the ~~Director~~ Secretary approve such a plan based upon natural processes of degradation and attenuation of contaminants. A request submitted to the ~~Director~~ Secretary under this Paragraph shall include a description of site specific conditions, including written documentation of projected groundwater use in the contaminated area based on current state or local government planning efforts; the technical basis for the request; and any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request. In addition, the person making the request must demonstrate to the satisfaction of the ~~Director~~ Secretary:
- (1) that all sources of contamination and free product have been removed or controlled pursuant to Paragraph (f) of this Rule;
  - (2) that the contaminant has the capacity to degrade or attenuate under the site-specific conditions;
  - (3) that the time and direction of contaminant travel can be predicted with reasonable certainty;
  - (4) that contaminant migration will not result in any violation of applicable groundwater standards at any existing or foreseeable receptor;
  - (5) that contaminants have not and will not migrate onto adjacent properties, or that:
    - (A) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or
    - (B) the owners of such properties have consented in writing to the request;
  - (6) that, if the contaminant plume is expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
  - (7) that the person making the request will put in place a groundwater monitoring program sufficient to track the degradation and attenuation of contaminants and contaminant by-products within and down gradient of the plume and to detect contaminants and contaminant by-products prior to their reaching any existing or foreseeable receptor at least one year's time of travel upgradient of the receptor and no greater than the distance the groundwater at the contaminated site is predicted to travel in five years;
  - (8) that all necessary access agreements needed to monitor groundwater quality pursuant to SubParagraph (7) of this Paragraph have been or can be obtained;
  - (9) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section; and
  - (10) that the proposed corrective action plan would be consistent with all other environmental laws.

(m) The ~~Division~~ Department or any person required to implement an approved corrective action plan for a ~~non-permitted site pursuant to~~ site subject to Paragraph (c) or (e) of this Rule may request that the ~~Director~~ Secretary approve termination of corrective action.

(1) A request submitted to the ~~Director~~ Secretary under this Paragraph shall include:

- (A) a discussion of the duration of the corrective action, the total project's cost, projected annual cost for continuance and evaluation of the success of the corrective action;
- (B) an evaluation of alternate treatment technologies which could result in further reduction of contaminant levels projected capital and annual operating costs for each technology;
- (C) effects, including health and safety impacts, on groundwater users if contaminant levels remain at levels existing at the time corrective action is terminated; and
- (D) any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request.

(2) In addition, the person making the request must demonstrate to the satisfaction of the ~~Director~~ Secretary:

- (A) that continuation of corrective action would not result in a significant reduction in the concentration of contaminants (At a minimum this demonstration must show the duration and degree of success of existing remedial efforts to attain standards and include a showing that the asymptotic slope of the contaminants curve of decontamination is less than a ratio of 1:40 over a term of one year based on quarterly sampling);
- (B) that contaminants have not and will not migrate onto adjacent properties, or that:
  - (i) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or
  - (ii) the owners of such properties have consented in writing to the request;
- (C) that, if the contaminant plumes expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
- (D) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section; and
- (E) that the proposed termination would be consistent with all other environmental laws.

(3) The ~~Director~~ Secretary shall not authorize termination of corrective action for any area that, at the time the request is made, has been identified by a state or local groundwater use planning process for resource development.

(4) The ~~Director~~ Secretary may authorize the termination of corrective action, or amend the corrective action plan after considering all the information in the request. Upon termination of corrective action, the ~~Director~~ Secretary shall require implementation of a groundwater monitoring program sufficient to track the degradation and attenuation of contaminants at a location of at least one year's predicted time of travel upgradient of any existing or foreseeable receptor. The monitoring program shall

1 remain in effect until there is sufficient evidence that the contaminant concentrations  
2 have been reduced to the level of the standards.

3 (n) Upon a determination by the ~~Director~~ Secretary that continued corrective action would result in  
4 no significant reduction in contaminant concentrations, and the contaminated groundwaters can be  
5 rendered potable by treatment using readily available and economically reasonable technologies, the  
6 ~~Director~~ Secretary may designate the remaining area of degraded groundwater RS. Where the  
7 remaining degraded groundwaters cannot be made potable by such treatment, the ~~Director~~ Secretary  
8 may consider a request for reclassification of the groundwater to a GC classification as outlined in  
9 Rule .0201 of this Subchapter.

10 (o) If at any time the ~~Director~~ Secretary determines that a new technology is available that would  
11 remediate the contaminated groundwater to the standards specified in Rule .0202 of this Subchapter,  
12 the ~~Director~~ Secretary may require the responsible party to evaluate the economic and technological  
13 feasibility of implementing the new technology in an active groundwater corrective action plan in  
14 accordance with a schedule established by the ~~Director~~ Secretary. The ~~Director's~~ Secretary's  
15 determination to utilize new technology at any site or for any particular constituent shall include a  
16 consideration of the factors in Paragraph (h) of this Rule.

17 (p) Where standards are exceeded as a result of the application of pesticides or other agricultural  
18 chemicals, the ~~Director~~ Secretary shall request the Pesticide Board or the Department of Agriculture  
19 to assist the ~~Division of Environmental Management~~ Department in determining the cause of the  
20 violation. If the violation is determined to have resulted from the use of pesticides, the ~~Director~~  
21 Secretary shall request the Pesticide Board to take appropriate regulatory action to control the use of  
22 the chemical or chemicals responsible for, or contributing to, such violations, or to discontinue their  
23 use.

24 (q) The approval pursuant to this Rule of any corrective action plan, or modification or termination  
25 thereof, which permits the migration of a contaminant onto adjacent property, shall not affect any  
26 private right of action by any party which may be effected by that contamination.

27 (r) If a discharge or release is not governed by 15A NCAC 2L .0115 and the increase in the  
28 concentration of a substance in excess of the standard resulted in whole or in part from a release  
29 from a commercial or noncommercial underground storage tank as defined in G.S. 143-215.94A,  
30 any person required to implement an approved corrective action plan pursuant to this Rule and  
31 seeking reimbursement for the Commercial or Noncommercial Leaking Petroleum Underground  
32 Storage Tank Cleanup Funds shall implement a corrective action plan meeting the requirements of  
33 Paragraph (k) or (l) of this Rule unless such a person demonstrates to the ~~Director~~ Secretary that:

- 34 (1) contamination resulting from the discharge cannot qualify for approval of a plan  
35 based on the requirements of the Paragraphs; or
- 36 (2) the cost of making such a demonstration would exceed the cost of implementing a  
37 corrective action plan submitted pursuant to Paragraph (c) of this Rule.

38 (s) If a discharge or release is not governed by 15A NCAC 2L .0115 and the increase in the  
39 concentration of a substance in excess of the standard resulted in whole or in part from a release  
40 from a commercial or noncommercial underground storage tank as defined in G.S. 143-215.94A, the  
41 ~~Director~~ Secretary may require any person implementing or operating a previously approved  
42 corrective action plan pursuant to this Rule to:

- 43 (1) develop and implement a corrective action plan meeting the requirements of  
44 Paragraphs (k) and (l) of this Rule; or
- 45 (2) seek discontinuance of corrective action pursuant to Paragraph (m) of this Rule.

1 *History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143-215.94A; 143-215.94T; 143-*  
2 *215.94V; 143B-282;*  
3 *1995 (Reg. Sess. 1996) c. 648, s. 1;*  
4 *Eff. August 1, 1989;*  
5 *Amended Eff. October 1, 1993; September 1, 1992;*  
6 *Temporary Amendment Eff. January 2, 1998; January 2, 1996;*  
7 *Amended Eff. October 29, 1998.*